Application No.: 10/625,738

Attorney Docket No.: 107337-00049

IN THE CLAIMS:

1. (Currently Amended) An analog switch circuit for sampling an analog <u>input</u> signal, the circuit comprising:

an analog switch section including a first n-channel MOS field effect transistor and a first p-channel MOS field effect transistor, sources of which are connected, drains of which are connected, and therefore which said first n-channel and first p-channel MOS field transistors are connected in parallel, for inputting an receiving the analog input signal and for outputting a sampled analog output signal;

a comparator circuit for inputting receiving the analog input signal and a reference signal and for comparing the input potential of the analog input signal and the reference potential of the reference signal; and

a voltage boost circuit for setting a potential of a gate of the first n-channel MOS field effect transistor to a potential of positive power supply voltage in the case of the input potential of the analog input signal being lower than the reference potential at the time of the analog switch section being in a continuity state and for boosting the potential of the gate to a potential higher than the potential of the positive power supply voltage in the case of the input potential of the analog input signal being higher than the reference potential at the time of the analog switch section being in [[a]] the continuity state.

2. (Currently Amended) The analog switch circuit according to claim 1, wherein the comparator circuit includes a filter for absorbing a drop in the input potential of the analog input signal input at the time of the analog switch section being in [[a]] the continuity state.

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3. (Currently Amended) The analog switch circuit according to claim 1, further

comprising a signal line for inputting receiving a signal for performing the voltage boost

boosting of the potential of the gate of the first n-channel MOS field effect transistor to

the potential higher than the potential of the positive power supply voltage regardless of

the result of a comparison made by the comparator circuit.

4. (Currently Amended) The analog switch circuit according to claim 1, further

comprising a signal line for inputting receiving a signal for not performing the voltage

boost boosting of the potential of the gate of the first n-channel MOS field effect

transistor to the potential higher than the potential of the positive power supply voltage

regardless of the result of a comparison made by the comparator circuit.

5. (Currently Amended) An analog switch circuit for sampling an analog input

signal, the circuit comprising:

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an analog switch section including a first n-channel MOS field effect transistor

and a first p-channel MOS field effect transistor, sources of which are connected, drains

of which are connected, and therefore which said first n-channel and first p-channel

MOS field effect transistors are connected in parallel, for inputting an receiving the

analog input signal and for outputting a sampled analog output signal;

a comparator circuit for inputting receiving the analog input signal and a

reference signal and for comparing the input potential of the analog input signal and the

reference potential of the reference signal; and

a circuit for setting a potential of a gate of the first p-channel MOS field effect

transistor to a potential of negative power supply voltage or ground potential in the case

of the input potential of the analog input signal being higher than the reference potential

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at the time of the analog switch section being in a continuity state and for setting the

potential of the gate to a potential lower than the potential of the negative power supply

voltage or the ground potential in the case of the input potential of the analog input

signal being lower than the reference potential at the time of the analog switch section

being in [[a]] the continuity state.

6. (Currently Amended) The analog switch circuit according to claim 5, wherein

the comparator circuit includes a filter for absorbing a rise in the input potential of the

analog input signal input at the time of the analog switch section being in [[a]] the

continuity state.

7. (Currently Amended) The analog switch circuit according to claim 5, further

comprising a signal line for inputting receiving a signal for setting the potential of the

gate to the potential lower than the potential of the negative power supply voltage or the

ground potential regardless of the result of a comparison made by the comparator

circuit.

8. (Currently Amended) The analog switch circuit according to claim 5, further

comprising a signal line for inputting receiving a signal for not setting the potential of the

gate to the potential lower than the potential of the negative power supply voltage or the

ground potential regardless of the result of a comparison made by the comparator

circuit.

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